REMARKS/ARGUMENTS

Favorable reconsideration of the present application is respectfully requested.

Claim 8 has been amended for clarity and emphasis, and further to recite that the damper has a plurality of perforated holes and that the casing rotatably accommodates the damper to form a plurality of air channels between a plurality of the perforated holes and a respective plurality of the flow paths only when the damper is at a predetermined rotational position. Basis for this is found at page 21, lines 17-26 and page 22, lines 13-17. Thus a single damper can supply air to the plurality of air flow paths via the perforated holes.

Claim 14 has been amended to recite that the cooling air is blown perpendicularly to a surface of the conveyed glass sheet by swinging the air nozzle "in synchronization with the movement of the conveyed glass sheet." Basis for this is present in the description that the nozzles are swingable to blow air perpendicular to the plane of the glass sheet (sentence bridging pp. 17-18) and the fact that glass sheet is curved in the direction of its movement. Movement of the glass sheets will inherently require the nozzles to swing in synchronization with the movement of the conveyed glass sheet so as to match the changing curvature of the portion of a moving glass sheet passing a given nozzle.

Claims 8, 10 and 11 have again been rejected under 35 U.S.C. § 103 as being obvious over Nemugaki et al in view of Dominka. Applicants had previously explained the basis for the patentability of these claims at page 9 in the response filed on August 6, 2007, which arguments are herein reconfirmed and incorporated by reference. In particular, rotation operation of a single damper in a divided air supply box can be used to open or close plural flow paths. It is thus possible to control and coordinate the air flow in the plural flow paths during the blowing and stopping steps with a simpler structure since separate control of plural dampers for the plural flow paths is not required.

To elaborate further, it is necessary to supply cooling air to air blowing heads arranged in the conveying direction, in synchronism with the movement of a glass sheet in the conveying direction. Thus the timing of the opening/closing of dampers in the blowing heads must be accurately controlled. On the other hand, an air pressure balance in the direction transverse to the conveying direction must also be made uniform, which requires plural air flow paths in the transverse direction. Nemugaki et al teaches that each of these air flow paths has a separate damper. On the other hand, the present invention, in recognition that the transverse flow pattern in any air blowing head is always the same, provides only a single damper with plural openings for the plural air flow paths.

The outstanding Office Action indicates the examiner did not find these arguments to be persuasive for the reasons set forth in the "Response to Arguments" portion beginning at page 8. Applicants hereby respond to these reasons, as follows:

1. The Office Action states that "Applicant acknowledges that Nemugaki ... discloses a plurality of ... air supply boxes denoted by 130 and 150, respectively. Applicant further acknowledges that each of the air supply boxes is provided with a damper ... and each box is connected to a respective blowing member via a plurality of flow paths." It is respectfully noted that this is incorrect. Applicants have instead pointed out that Fig. 4 of Nemugaki et al illustrates plural supplying ports 130A, 150A in the transverse direction, and that each of the supply ports 130A, 150A in the transverse direction has a separate damper requiring separate control. Fig. 8 illustrates a separate damper in an air-supplying port 130A, 150A.

2. The Office Action states that Nemugaki et al "provides neither an explicit nor an implicit requirement such that each of the flow paths is provided with a separate, and independent, damper device. Rather, Nemugaki teaches only that each supply box is equipped with a damper." This is respectfully traversed. Referring to the terminology of

Nemugaki et al and using the numbering of the upper air-cooling /tempering device 16 of Nemugaki et al, each of the air blowing heads 24A-24J is connected to the air blowing box 100 by respective pipes 132 as seen in the transverse direction (Fig. 4). Each of the transversely arranged individual pipes 132 has a separate damper (seen in Fig. 8), which must be separately controlled. That is, Nemugaki et al does not describe the detailed structure of each of the dampers 250A, 250B ... 250B, 252B. Instead, it only shows an embodiment wherein a plurality of air supply ports is provided with respective dampers. This construction requires that the opening/closing timing of the individual dampers be separately controlled, which is complicated. Further, since there will inevitably individual differences among the dampers, it may be difficult to achieve simultaneous operation of all of the dampers in any given transverse row.

3. The Office Action states that "the claim language does not require the alleged 'dampers in divided air supply boxes which each having a plurality of flow paths.'" In fact, Claim 8 recited: "a divided air-supply box provided for each of the upper and lower blowing members ... a plurality of flow paths defining elements connected to each of said divided air-supply boxes and a respective upper and lower blowing member ... wherein each of the divided air-supply boxes comprises a cylindrical damper." It is respectfully submitted that this claim language required "dampers in divided air supply boxes ... each having a plurality of flow paths."

Nonetheless, Claim 8 has been amended to recite this feature with greater emphasis and now recites: "a plurality of flow paths provided for connecting each of said divided air-supply boxes with respective upper and lower blowing members and an air-supply source connected to the divided air-supply boxes, wherein each of the divided air-supply boxes comprises a cylindrical damper therein, wherein each of the cylindrical dampers has a plurality of perforated holes provided at its side, a casing for rotatably accommodating the

cylindrical damper and for forming air channels between the plurality of perforated holes and a respective plurality of the flow paths only when the cylindrical damper is at a predetermined rotational position, and a slide bearing provided in a space between the cylindrical damper and the casing." It is respectfully submitted that this unequivocally requires that each of the air-supply boxes has a cylindrical damper, whereas a plurality of flow path defining elements are provided for connecting each of the air-supply boxes having a cylindrical damper to its respective blowing member. This may be contrasted with Nemugaki et al in which each of the transversely arranged flow path defining elements132 (Fig. 4) has a separate damper.

Applicants note that the Office Action indicates that air supplying ports 130 of Nemugaki et al are considered by the examiner to be "air supply boxes" having a damper. However, even in this case, since the air supplying port 130 are each connect to the air blowing heads 24 by the pipe 132, this interpretation fails to address the claimed *plurality* of flow path defining elements provided for connecting each of the air-supply boxes to its respective blowing member, or the presently claimed arrangement of a plurality of perforated holes for forming air channels with a respective plurality of the flow paths.

Dominka discloses a rotary damper, *per se*. However the damper in Dominka has only a single air supply hole for a single air flow path. Therefore, Dominka could not suggest modifying Nemugaki et al to provide dampers in divided air supply boxes having the presently claimed plurality of perforated holes for a plurality of flow paths. That is, since neither Nemugaki et al nor Dominka discloses a damper controlling plural air flow paths via plural perforated holes, no combination of these references would teach a damper in each of divided air supply boxes, each of which has a plurality of perforated holes for plural air flow paths. The claims therefore define over any combination of these references.

Claim 14 recites that the blowing member comprises an air-nozzle swingable in the conveying direction of the glass sheet to change the direction of the blowing of the cooling air in the conveying direction of the glass sheet. An example of this is seen in Figure 4 wherein the air-nozzles 25 are mounted to swing in the direction of movement of the glass sheet. The cooling air is thereby blown perpendicularly to a surface of the conveyed glass sheet by swinging the air nozzle.

Claim 14 was again rejected under 35 U.S.C. § 103 as being obvious over Nemugaki et al in view of Nikander. Applicants had previously explained that the tilting of the nozzles 2n shown in the figures of Nikander is done in a direction transverse to the conveying direction and not in the conveying direction of the glass sheet. In reply, the Office Action deemed that it would have been obvious in view of Nikander to have tilted the nozzles of Nemugaki et al in any direction required to blow air perpendicularly onto a bent glass sheet.

Claim 14 has been amended to further recite that the cooling air is blown perpendicularly to a surface of the conveyed glass sheet by swinging the air nozzle "in synchronization with the movement of the conveyed glass sheet." The tilting of the nozzles transverse to the conveying direction, as taught in Nikander, would not lead one skilled in the art to have swung the nozzles of Nemugaki et al in the conveying direction "in synchronization with the movement of the conveyed glass sheet" because the former would be a static tilt whereas the latter must necessarily be dynamic swinging.

The nozzles in Nikander are tilted laterally to conform to the transverse curvature of the glass sheet being bent. This tilt is static since each part of the glass sheet passing a given nozzle will have the same curvature. Thus the tilt does not change with the movement of the glass sheet and the nozzles may remain static. On the other hand, according to the present invention the nozzles swing in synchronization with the movement of the glass sheets so as to

match the changing curvature of the portion of a moving glass sheet passing a given nozzle. This dynamic swinging would not have been obvious from the static tilt of Nikander.

Applicants therefore believe that the present application is in a condition for allowance and respectfully solicit an early Notice of Allowability.

Respectfully submitted,

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